

Euchlaena and maize are rather closely related to one another, and cross spontaneously. Seed of the former imported from Mexico is often obviously hybridized. That from Durango, whence COLLINS and KEMPTON got their strain, is so impure that the parent of their hybrid is not free from suspicion of contamination. A priori, therefore, we should expect similarity of behavior in the hybrids between these two closely related plants and the distantly related *Tripsacum*. Nevertheless, all the plants of *Tripsacum* × *Mais* thus far raised have shown maternal characters only, in marked contrast to the paternal characters of the corresponding hybrid *Tripsacum* × *Euchlaena*. More first generation plants are greatly to be desired, but there is difficulty in getting them because the parent species can seldom be brought into flower simultaneously.

The authors lead us to expect cytological data bearing on the question raised by their very important discovery.—H. H. BARTLETT.

Negative osmosis.—In osmotic experiments it has been found that the flow of water is not always from the less concentrated toward the more concentrated solution. Several cases have been reported in which an opposite flow of water occurred, or in which a movement of water was observed in dealing with solutions with the same osmotic pressure. This is called negative or abnormal osmosis. FREUNDLICH²⁰ has given us a discussion of these experiments, has defined the conditions under which abnormal osmosis can take place, and has dealt with the cause of it. It appears that such movements of water are caused by the development of an electric current through the membrane, and the water moves in an electroendosmotic manner in the current. The generation of this current and the consequent electroendosmosis can take place in two sets of conditions: (1) when the membrane is permeable to both solvent and solute the ions of the electrolyte are adsorbed by the membrane, their transport numbers changed, and a difference of electric potential on opposite sides of the membrane established, which leads to the starting of an electric current; (2) when the membrane allows only one of the ions of the electrolyte to pass through, the other ion being held back. This semipermeability toward one ion leads to a difference of potential, an electric current is established, and water moves across the membrane by electroendosmosis. This can take place only when the electrolytes on opposite sides of the membrane are different and are such that the ions may react with each other and set free electrical changes.—F. E. DENNY.

Growth in Laminariaceae.—Miss FALLIS²¹ reports experimental data on the growth of several species of Laminariaceae. She worked on species of *Laminaria*, *Agarum*, *Cymathaere*, *Egregia*, *Alaria*, and *Nereocystis*. She found

²⁰ FREUNDLICH, H., Über abnorme Osmosen. Kolloid. Zeitschr. 18:11-16. 1916.

²¹ FALLIS, ANNIE L., Growth in some Laminariaceae. Puget Sound Marine Sta. Publ. 1:137-155. pls. 25-28. 1916.